

1 I claim:

- 2 1. An improved liquid sampling device comprising:  
3 an elongate, substantially cylindrical conduit member  
4 having first and second conduit ends;  
5 a first conduit member terminus;  
6 a second conduit member terminus, said second conduit  
7 member terminus being shaped to generally define a  
8 second convex dome extending outwardly from said  
9 conduit member at said second conduit end, said  
10 second convex dome portion of said second conduit  
11 member terminus being substantially centered on  
12 the longitudinal axis of symmetry of said conduit  
13 member, said second conduit member terminus having  
14 an in-take orifice defined therethrough and a  
15 valve member for valving passage of fluid through  
16 said in-take orifice; and  
17 a flow control insert having a flow control orifice and  
18 being sized and shaped for telescopic engagement  
19 with said in-take orifice, said flow control  
20 orifice having a cumulatively lesser cross section  
21 than said intake orifice.  
22

1           2. The apparatus of Claim 1 wherein said first  
2 conduit member terminus is shaped to generally define a  
3 first convex dome extending outwardly from said conduit  
4 member at said first conduit end, said first convex  
5 dome portion of said first conduit member terminus  
6 being substantially centered on the longitudinal axis  
7 of symmetry of said conduit member, said convex dome  
8 portion having cord attachment means  
9

10           3. The apparatus of claim 2 wherein said cord  
11 attachment means comprises of first and second  
12 attachment orifices defined through said dome portion  
13 of said first conduit member terminus and separated by  
14 a portion of said dome portion of said first conduit  
15 member terminus, whereby a terminal end of an elongate  
16 cording member may pass into said apparatus through  
17 said first attachment orifice and exit said apparatus  
18 through said second attachment orifice whereafter said  
19 terminal end of said cording member may be secured to a  
20 medial portion of said cording member to secure an  
21 attachment between said cording member and said  
22 apparatus.  
23

1           4. The apparatus of claim 3 further comprising  
2 negative buoyancy means for adjusting buoyancy of said  
3 apparatus when submersed in liquid.  
4

5           5. The apparatus of claim 1 wherein said first  
6 terminus member is a removable cap-like member having a  
7 first nesting lip extending from the circumferential  
8 margin of said first convex dome, said first nesting  
9 lip being configured for reversibly, slidably and  
10 snugly nesting within said conduit member at said first  
11 conduit member end for reversibly attaching said first  
12 terminus member to said conduit member.  
13

14           6. The apparatus of claim 1 wherein said second  
15 terminus member is a removable cap-like member having a  
16 second nesting lip extending from the circumferential  
17 margin of said second convex dome, said second nesting  
18 lip being configured for reversibly, slidably and  
19 snugly nesting within said conduit member at said  
20 second conduit member end for reversibly attaching said  
21 second terminus member to said conduit member.  
22

1           7. The apparatus of claim 1 wherein said in-take  
2 orifice is defined by said second convex dome whereby  
3 said in-take orifice is centered on an axis of symmetry  
4 of said second convex dome.

5  
6           8. The apparatus of claim 1, wherein said flow  
7 control insert further comprises means for filtering  
8 particulates.

9  
10          9. The apparatus of claim 8 further comprising  
11 negative buoyancy means for adjusting buoyancy of said  
12 apparatus when submersed in liquid.

13  
14          10. The apparatus of claim 2 wherein said first  
15 terminus member is a removable cap-like member having a  
16 first nesting lip extending from the circumferential  
17 margin of said first convex dome, said first nesting  
18 lip being configured for reversibly, slidably and  
19 snugly nesting within said conduit member at said first  
20 conduit member end for reversibly attaching said first  
21 terminus member to said conduit member.

22

1           11. The apparatus of claim 2 wherein said second  
2 terminus member is a removable cap-like member having a  
3 second nesting lip extending from the circumferential  
4 margin of said second convex dome, said second nesting  
5 lip being configured for reversibly, slidably and  
6 snugly nesting within said conduit member at said  
7 second conduit member end for reversibly attaching said  
8 second terminus member to said conduit member.  
9

10           12. The apparatus of claim 2 wherein said in-take  
11 orifice is defined by said second convex dome whereby  
12 said in-take orifice is centered on an axis of symmetry  
13 of said second convex dome.  
14

15           13. The apparatus of claim 2, wherein said flow  
16 control insert further comprises means for filtering  
17 particulates.  
18

19           14. The apparatus of claim 13 further comprising  
20 negative buoyancy means for adjusting buoyancy of said  
21 apparatus when submersed in liquid.  
22

1                   15. The apparatus of claim 2 further comprising  
2 negative buoyancy means for adjusting buoyancy of said  
3 apparatus when submersed in liquid.  
4  
5

1                   16. An improved method for taking a test well  
2 sample comprising the steps of:  
3 identifying the recharge rate of a test well;  
4                   selecting a bailer apparatus comprising:  
5                   an elongate, substantially cylindrical  
6                   conduit member having first and second  
7                   conduit ends;  
8                   a first conduit member terminus;  
9                   a second conduit member terminus, said second  
10                  conduit member terminus being shaped to  
11                  generally define a second convex dome  
12                  extending outwardly from said conduit  
13                  member at said second conduit end, said  
14                  second convex dome portion of said  
15                  second conduit member terminus being  
16                  substantially centered on the  
17                  longitudinal axis of symmetry of said  
18                  conduit member, said second conduit  
19                  member terminus having an in-take  
20                  orifice defined therethrough and a valve  
21                  member for valving passage of fluid  
22                  through said in-take orifice;

1 a flow control insert having a flow control  
2 orifice and being sized and shaped for  
3 telescopic engagement with said in-take  
4 orifice, said flow control orifice  
5 having a cumulatively lesser cross  
6 section than said intake orifice;  
7 selection of said flow control insert following  
8 determination of an in-take orifice dimension  
9 of said flow control insert which will limit  
10 inflow into said apparatus which at a rate  
11 substantially equivalent to said recharge  
12 rate;  
13 adding negative buoyancy means to said apparatus  
14 to effect a slightly negative buoyancy when  
15 said apparatus is placed atop a liquid column  
16 substantially of water;  
17 placing said apparatus in a test well to obtain a  
18 sample of the contents thereof; and  
19 removing said apparatus after said sample is  
20 obtained.  
21  
22  
23